

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO  
Brownsville Public Utilities Board

AUTHORIZING THE OPERATION OF  
Silas Ray Power Plant  
Electric Services

LOCATED AT  
Cameron County, Texas  
Latitude 25° 54' 40" Longitude 97° 31' 17"  
Regulated Entity Number: RN100219450

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site, emission units and affected source listed in this permit. Operations of the site, emission units and affected source listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site, emission units and affected source authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site, emission units and affected source.

Permit No: 066 Issuance Date: \_\_\_\_\_

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For the Commission

## Table of Contents

Section	Page
General Terms and Conditions .....	1
Special Terms and Conditions: .....	1
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting.....	1
Additional Monitoring Requirements .....	6
New Source Review Authorization Requirements.....	6
Compliance Requirements .....	7
Temporary Fuel Shortages (30 TAC § 112.15).....	8
Permit Location.....	8
Permit Shield (30 TAC § 122.148) .....	8
Acid Rain Permit Requirements .....	9
Clean Air Interstate Rule Permit Requirements .....	13
Attachments.....	18
Applicable Requirements Summary.....	19
Additional Monitoring Requirements .....	29
Permit Shield .....	36
New Source Review Authorization References .....	38
Appendix A .....	41
Acronym List .....	42
Appendix B .....	43

## **General Terms and Conditions**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

## **Special Terms and Conditions:**

### **Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting**

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
  - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

- D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
- E. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 2 (Emissions Banking and Trading of Allowances) Requirements for an electric generating facility authorized under 30 TAC Chapter 116, Subchapter I:
  - (i) Title 30 TAC § 101.332 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.333 (relating to Allocation of Allowances)
  - (iii) Title 30 TAC § 101.334 (relating to Allowance Deductions)
  - (iv) Title 30 TAC § 101.335 (relating to Allowance Banking and Trading)
  - (v) Title 30 TAC § 101.336 (relating to Emission Monitoring and Compliance Demonstration and Reporting)
  - (vi) Title 30 TAC § 101.338 (relating to Emission Reductions Achieved Outside the United States)
  - (vii) The terms and conditions by which the emission limits are established to meet the quantity of allowances for the electric generating facility are applicable requirements of this permit
- 2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
  - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
  - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
- A. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
  - (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
  - (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
    - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.
    - (2) Records of all observations shall be maintained.
    - (3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
    - (4) Compliance Certification:
      - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with

the applicable opacity requirement in  
30 TAC § 111.111(a)(7) and (a)(7)(A)

- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader

B. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
- (iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
  - (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
  - (2) Records of all observations shall be maintained.
  - (3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the

observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- C. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
  - D. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)
  - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
  - D. Title 40 CFR § 60.12 (relating to Circumvention)

- E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
5. The permit holder shall comply with certified registrations submitted to the TCEQ for purposes of establishing federally enforceable emission limits. A copy of the certified registration shall be maintained with the permit. Records sufficient to demonstrate compliance with the established limits shall be maintained. The certified registration and records demonstrating compliance shall be provided, on request, to representatives of the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction over the site. The permit holder shall submit updated certified registrations when changes at the site require establishment of new emission limits. If changes result in emissions that do not remain below major source thresholds, the permit holder shall submit a revision application to codify the appropriate requirements in the permit.

#### **Additional Monitoring Requirements**

6. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

#### **New Source Review Authorization Requirements**

7. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
- A. Are incorporated by reference into this permit as applicable requirements
  - B. Shall be located with this operating permit
  - C. Are not eligible for a permit shield



8. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
9. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).
10. The permit holder shall comply with the following requirements for Air Quality Standard Permits:
  - A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit
  - B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit
  - C. Requirements of the Electric Generating Unit Standard Permit for facilities located in the West Texas region based on the information contained in the registration application.

### **Compliance Requirements**

11. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
12. Use of Discrete Emission Credits to comply with the applicable requirements:
  - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) If applicable, offsets for Title 30 TAC Chapter 116

- (iv) Temporarily exceed state NSR permit allowables
- B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
  - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
  - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
  - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
  - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
  - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

**Temporary Fuel Shortages (30 TAC § 112.15)**

- 13. The permit holder shall comply with the following 30 TAC Chapter 112 requirements:
  - A. Title 30 TAC § 112.15 (relating to Temporary Fuel Shortage Plan Filing Requirements)
  - B. Title 30 TAC § 112.16(a), (a)(1), and (a)(2)(B) - (C) (relating to Temporary Fuel Shortage Plan Operating Requirements)
  - C. Title 30 TAC § 112.17 (relating to Temporary Fuel Shortage Plan Notification Procedures)
  - D. Title 30 TAC § 112.18 (relating to Temporary Fuel Shortage Plan Reporting Requirements)

**Permit Location**

- 14. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

**Permit Shield (30 TAC § 122.148)**

- 15. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit

shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

### **Acid Rain Permit Requirements**

16. For units T9 and T10 (identified in the Certificate of Representation as units 9 and 10) located at the affected source identified by ORIS/Facility code 3559, the designated representative and the owner or operator, as applicable, shall comply with the following Acid Rain Permit requirements.

#### **A. General Requirements**

- (i) Under 30 TAC § 122.12(1) and 40 CFR Part 72, the Acid Rain Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP) and have an independent public comment process which may be separate from, or combined with the FOP.
- (ii) The owner and operator shall comply with the requirements of 40 CFR Part 72 and 40 CFR Part 76. Any noncompliance with the Acid Rain Permit will be considered noncompliance with the FOP and may be subject to enforcement action.
- (iii) The owners and operators of the affected source shall operate the source and the unit in compliance with the requirements of this Acid Rain Permit and all other applicable State and federal requirements.
- (iv) The owners and operators of the affected source shall comply with the General Terms and Conditions of the FOP that incorporates this Acid Rain Permit.
- (v) The term for the Acid Rain permit shall commence with the issuance of the FOP that incorporates the Acid Rain permit and shall be run concurrent with the remainder of the term of the FOP. Renewal of the Acid Rain permit shall coincide with the renewal of the FOP that incorporates the Acid Rain permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

#### **B. Monitoring Requirements**

- (i) The owners and operators, and the designated representative, of the affected source and each affected unit at the source shall comply with the monitoring requirements contained 40 CFR Part 75.
- (ii) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 and any other credible evidence shall be used to determine compliance by the affected source with the acid rain emissions limitations and emissions reduction requirements for SO<sub>2</sub> and NO<sub>x</sub> under the ARP.
- (iii) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emission of other pollutants or other emissions characteristics at the unit under other applicable requirements of the FCAA Amendments (42 U.S.C. 7401, as amended

November 15, 1990) and other terms and conditions of the operating permit for the source.

C. SO<sub>2</sub> emissions requirements

- (i) The owners and operators of each source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for SO<sub>2</sub>.
- (ii) As of the allowance transfer deadline the owners and operators of the affected source and each affected unit at the source shall hold, in the unit's compliance subaccount, allowances in an amount not less than the total annual emissions of SO<sub>2</sub> for the previous calendar year.
- (iii) Each ton of SO<sub>2</sub> emitted in excess of the acid rain emissions limitations for SO<sub>2</sub> shall constitute a separate violation of the FCAA amendments.
- (iv) An affected unit shall be subject to the requirements under (i) and (ii) of the SO<sub>2</sub> emissions requirements as follows:
  - (1) Starting January 1, 2000, an affected unit under 40 CFR § 72.6(a)(2); or
  - (2) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR § 72.6(a)(3).
- (v) Allowances shall be held in, deducted from, or transferred into or among Allowance Tracking System accounts in accordance with the requirements of the ARP.
- (vi) An allowance shall not be deducted, for compliance with the requirements of this permit, in a calendar year before the year for which the allowance was allocated.
- (vii) An allowance allocated by the EPA Administrator or under the ARP is a limited authorization to emit SO<sub>2</sub> in accordance with the ARP. No provision of the ARP, Acid Rain permit application, this Acid Rain Permit, or an exemption under 40 CFR §§ 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (viii) An allowance allocated by the EPA Administrator under the ARP does not constitute a property right.

D. NO<sub>x</sub> Emission Requirements

- (i) The owners and operators of the source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for NO<sub>x</sub> under 40 CFR Part 76.

E. Excess emissions requirements for SO<sub>2</sub> and NO<sub>x</sub>.

- (i) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (ii) If an affected source has excess emissions in any calendar year shall, as required by 40 CFR Part 77:
  - (1) Pay, without demand, the penalty required and pay, upon demand, the interest on that penalty.
  - (2) Comply with the terms of an approved offset plan.

F. Recordkeeping and Reporting Requirements

- (i) Unless otherwise provided, the owners and operators of the affected source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the EPA Administrator.
  - (1) The certificate of representation for the designated representative for the source and each affected unit and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR § 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.
  - (2) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping (rather than a five-year period cited in 30 TAC § 122.144), the 3-year period shall apply.
  - (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the ARP or relied upon for compliance certification.
  - (4) Copies of all documents used to complete an acid rain permit application and any other submission under the ARP or to demonstrate compliance with the requirements of the ARP.
- (ii) The designated representative of an affected source and each affected unit at the source shall submit the reports required under the ARP including those under 40 CFR Part 72, Subpart I and 40 CFR Part 75.

G. Liability

- (i) Any person who knowingly violates any requirement or prohibition of the ARP, a complete acid rain permit application, an acid rain permit, or a written exemption under 40 CFR §§ 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to FCAA § 113(c).

- (ii) Any person who knowingly makes a false, material statement in any record, submission, or report under the ARP shall be subject to criminal enforcement pursuant to FCAA § 113(c) and 18 U.S.C. 1001.
  - (iii) No permit revision shall excuse any violation of the requirements of the ARP that occurs prior to the date that the revision takes effect.
  - (iv) The affected source and each affected unit shall meet the requirements of the ARP contained in 40 CFR Parts 72 through 78.
  - (v) Any provision of the ARP that applies to an affected source or the designated representative of an affected source shall also apply to the owners and operators of such source and of the affected units at the source.
  - (vi) Any provision of the ARP that applies to an affected unit (including a provision applicable to the DR of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR § 72.44 (Phase II repowering extension plans) and 40 CFR § 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR §§ 75.16, 75.17, and 75.18), the owners and operators and the DR of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the DR and that is located at a source of which they are not owners or operators or the DR.
  - (vii) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or DR of such source or unit, shall be a separate violation of the FCAA Amendments.
- H. Effect on other authorities. No provision of the ARP, an acid rain permit application, an acid rain permit, or an exemption under 40 CFR §§ 72.7 or 72.8 shall be construed as:
- (i) Except as expressly provided in Title IV of the FCAA Amendments, exempting or excluding the owners and operators and, to the extent applicable, the DR of an affected source or affected unit from compliance with any other provision of the FCAA Amendments, including the provisions of Title I of the FCAA Amendments relating to applicable National Ambient Air Quality Standards or State Implementation Plans.
  - (ii) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the FCAA Amendments.
  - (iii) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law.

- (iv) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
  - (v) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.
- I. The number of SO<sub>2</sub> allowances allocated by the EPA in 40 CFR Part 73 is enforceable only by the EPA Administrator.

### **Clean Air Interstate Rule Permit Requirements**

17. For units T9 and T10 (identified in the Certificate of Representation as units 9 and 10) located at the affected source identified by ORIS/Facility code 3559, the designated representative and the owner or operator, as applicable, shall comply with the following Clean Air Interstate Rule (CAIR) Permit requirements. Until approval of the Texas CAIR SIP by EPA, the permit holder shall comply with the equivalent requirements of 40 CFR Part 97 in place of the referenced 40 CFR Part 96 requirements in the Texas CAIR permit and 30 TAC Chapter 122 requirements.

#### **A. General Requirements**

- (i) Under 30 TAC § 122.420(b) and 40 CFR §§ 96.120(b) and 96.220(b) the CAIR Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP).
- (ii) The owners and operators of the CAIR NO<sub>x</sub> and the CAIR SO<sub>2</sub> source shall operate the source and the unit in compliance with the requirements of this CAIR permit and all other applicable State and federal requirements.
- (iii) The owners and operators of the CAIR NO<sub>x</sub> and the CAIR SO<sub>2</sub> source shall comply with the General Terms and Conditions of the FOP that incorporates this CAIR Permit.
- (iv) The term for the initial CAIR permit shall commence with the issuance of the revision containing the CAIR permit and shall be the remaining term for the FOP that incorporates the CAIR permit. Renewal of the initial CAIR permit shall coincide with the renewal of the FOP that incorporates the CAIR permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

#### **B. Monitoring and Reporting Requirements**

- (i) The owners and operators, and the CAIR designated representative, of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HH.
- (ii) The owners and operators, and the CAIR designated representative, of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HHH.

- (iii) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH and any other credible evidence shall be used to determine compliance by the CAIR NO<sub>x</sub> source with the CAIR NO<sub>x</sub> emissions limitation.
- (iv) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH and any other credible evidence shall be used to determine compliance by the CAIR SO<sub>2</sub> source with the CAIR SO<sub>2</sub> emissions limitation.

C. NO<sub>x</sub> emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> allowances available for compliance deductions for the control period under 40 CFR § 96.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO<sub>x</sub> units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HH.
- (ii) A CAIR NO<sub>x</sub> unit shall be subject to the requirements of paragraph C.(i) of this CAIR Permit starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.170(b)(1), (2), or (5).
- (iii) A CAIR NO<sub>x</sub> allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR NO<sub>x</sub> allowance was allocated.
- (iv) CAIR NO<sub>x</sub> allowances shall be held in, deducted from or transferred into or among CAIR NO<sub>x</sub> Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FF or Subpart GG.
- (v) A CAIR NO<sub>x</sub> allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO<sub>x</sub> Annual Trading Program. No provision of the CAIR NO<sub>x</sub> Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.105 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
- (vi) A CAIR NO<sub>x</sub> allowance does not constitute a property right.
- (vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FF or Subpart GG, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> allowance to or from a CAIR NO<sub>x</sub> unit's compliance account is incorporated automatically in this CAIR permit.

D. NO<sub>x</sub> excess emissions requirement

- (i) If a CAIR NO<sub>x</sub> source emits nitrogen oxides during any control period in excess of the CAIR NO<sub>x</sub> emissions limitation, the owners and operators of the source and each CAIR NO<sub>x</sub> unit at the source shall surrender the CAIR



NO<sub>x</sub> allowances required for deduction under 40 CFR § 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.

- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable State law.

E. SO<sub>2</sub> emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, CAIR SO<sub>2</sub> allowances available for compliance deductions for the control period under 40 CFR § 96.254(a) and (b) in an amount not less than the tons of total sulfur dioxides emissions for the control period from all CAIR SO<sub>2</sub> units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HHH.
- (ii) A CAIR SO<sub>2</sub> unit shall be subject to the requirements of paragraph E.(i) of this CAIR Permit starting on the later of January 1, 2010, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.270(b)(1), (2), or (5).
- (iii) A CAIR SO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR SO<sub>2</sub> allowance was allocated.
- (iv) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FFF or Subpart GGG.
- (v) A CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.205 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
- (vi) A CAIR SO<sub>2</sub> allowance does not constitute a property right.
- (vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or Subpart GGG, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> unit's compliance account is incorporated automatically in this CAIR permit.

F. SO<sub>2</sub> excess emissions requirements

- (i) If a CAIR SO<sub>2</sub> source emits sulfur dioxides during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, the owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> allowances required for deduction under 40 CFR § 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy

imposed, for the same violations, under the Clean Air Act or applicable State law.

- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable State law.

G. Recordkeeping and Reporting Requirements

- (i) Unless otherwise provided, the owners and operators of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source and the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.
  - (1) The certificate of representation under 40 CFR §§ 96.113 and 96.213 for the CAIR NO<sub>x</sub> designated representative for the source and each CAIR NO<sub>x</sub> unit and the CAIR SO<sub>2</sub> designated representative for the source and each CAIR SO<sub>2</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR §§ 96.113 and 96.213 changing the CAIR designated representative.
  - (2) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH and Subpart HHH, provided that to the extent that these subparts provide for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> Annual Trading Program and CAIR SO<sub>2</sub> Trading Program or relied upon for compliance determinations.
  - (4) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO<sub>x</sub> Annual Trading Program and CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Annual Trading Program and CAIR SO<sub>2</sub> Trading Program.
- (ii) The CAIR designated representative of a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source and a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Annual Trading Program and the CAIR SO<sub>2</sub> Trading Program including those under 40 CFR Part 96, Subpart HH and Subpart HHH.

- H. The CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit shall meet the requirements of the CAIR NO<sub>x</sub> Annual Trading Program contained in 40 CFR Part 96, Subparts AA through II.

- I. The CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program contained in 40 CFR Part 96, Subparts AAA through III.
- J. Any provision of the CAIR NO<sub>x</sub> Annual Trading Program and the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR NO<sub>x</sub> source or CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR NO<sub>x</sub> source or CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and the units at the source.
- K. Any provision of the CAIR NO<sub>x</sub> Annual Trading Program and the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR NO<sub>x</sub> unit or CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR NO<sub>x</sub> unit or CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.
- L. No provision of the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, a CAIR permit application, a CAIR permit, or an exemption under 40 CFR §§ 96.105 or 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>x</sub> source or CAIR NO<sub>x</sub> unit or a CAIR SO<sub>2</sub> source or CAIR SO<sub>2</sub> unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

## **Attachments**

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**Permit Shield**

**New Source Review Authorization References**

**Applicable Requirements Summary**

**Unit Summary ..... 20**

**Applicable Requirements Summary ..... 24**

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
5	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	T9CCFO-CH111	30 TAC Chapter 111, Visible Emissions	Vent Source = The source of the vent is a steam generator that burns oil or a mixture of oil and gas.
5	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	T9CCNG-CH111	30 TAC Chapter 111, Visible Emissions	Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.
5A	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	T9SCFO-CH111	30 TAC Chapter 111, Visible Emissions	Vent Source = The source of the vent is a steam generator that burns oil or a mixture of oil and gas.
5A	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	T9SCNG-CH111	30 TAC Chapter 111, Visible Emissions	Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.
GRP-BLRS	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	1, 2	BNG-CH111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
SC-10	EMISSION POINTS/ STATIONARY VENTS/ PROCESS VENTS	N/A	T10-CH111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
T10	STATIONARY TURBINES	N/A	T10-60GG	40 CFR Part 60, Subpart GG	No changing attributes.
T9	STATIONARY TURBINES	N/A	T9CCFO-60GG	40 CFR Part 60, Subpart GG	Fuel Supply = Stationary gas turbine is supplied its fuel from

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					a bulk storage tank., NOx Control Method = Water or steam injection only., Turbine Cycle = Unit recovers heat from the gas turbine exhaust to heat water or generate steam., Duct Burner = The turbine is part of a combined cycle turbine system equipped with supplemental heat (duct burner)., Fuel Type Fired = Liquid fuel, Fuel Monitoring Schedule = Previously approved custom fuel monitoring schedule.
T9	STATIONARY TURBINES	N/A	T9CCNG-60GG	40 CFR Part 60, Subpart GG	Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage., NOx Control Method = Selective catalytic reduction., Turbine Cycle = Unit recovers heat from the gas turbine exhaust to heat water or generate steam., Duct Burner = The turbine is part of a combined cycle turbine system equipped with supplemental heat (duct burner)., Fuel Type Fired = Natural gas meeting the definition in § 60.331(u)., Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
T9	STATIONARY TURBINES	N/A	T9SCFO-60GG	40 CFR Part 60, Subpart GG	Fuel Supply = Stationary gas turbine is supplied its fuel from a bulk storage tank., NO <sub>x</sub> Control Method = Water or steam injection only., Turbine Cycle = Unit does not recover heat from the gas turbine exhaust to preheat inlet combustion air; or to heat water or generate steam., Fuel Type Fired = Liquid fuel, Fuel Monitoring Schedule = Previously approved custom fuel monitoring schedule.
T9	STATIONARY TURBINES	N/A	T9SCNG-60GG	40 CFR Part 60, Subpart GG	Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage., NO <sub>x</sub> Control Method = No NO <sub>x</sub> control method is used., Turbine Cycle = Unit does not recover heat from the gas turbine exhaust to preheat inlet combustion air; or to heat water or generate steam., Fuel Type Fired = Natural gas meeting the definition in § 60.331(u)., Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.
T9-DB	BOILERS/ STEAM GENERATORS/	N/A	T9-DB-60DC	40 CFR Part 60, Subpart Dc	No changing attributes.



**Unit Summary**

<b>Unit/Group/ Process ID No.</b>	<b>Unit Type</b>	<b>Group/Inclusive Units</b>	<b>SOP Index No.</b>	<b>Regulation</b>	<b>Requirement Driver</b>
	STEAM GENERATING UNITS				

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
5	EP	T9CCFO-CH111	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
5	EP	T9CCNG-CH111	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
5A	EP	T9SCFO-CH111	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
5A	EP	T9SCNG-CH111	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-BLRS	EP	BNG-CH111	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
SC-10	EP	T10-CH111	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
T10	EU	T10-60GG	SO <sub>2</sub>	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) [G]§ 60.334(h)(3)	None	None
T10	EU	T10-60GG	NO <sub>x</sub>	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	[G]§ 60.334(b) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(iii) [G]§ 60.335(a) § 60.335(b)(1) § 60.335(b)(2) § 60.335(c)(1)	[G]§ 60.334(b)	§ 60.334(j) § 60.334(j)(5)
T9	EU	T9CCFO-60GG	SO <sub>2</sub>	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) § 60.334(h)(4)	None	None

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
T9	EU	T9CCFO-60GG	NO <sub>x</sub>	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3) § 60.332(f) § 60.332(i)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	[G]§ 60.334(b) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(iii) [G]§ 60.335(a) § 60.335(b)(2) § 60.335(b)(3)	[G]§ 60.334(b)	§ 60.334(j) § 60.334(j)(3) § 60.334(j)(5)
T9	EU	T9CCNG-60GG	SO <sub>2</sub>	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) [G]§ 60.334(h)(3)	None	None
T9	EU	T9CCNG-60GG	NO <sub>x</sub>	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	[G]§ 60.334(b) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(iii) [G]§ 60.335(a) § 60.335(b)(2) § 60.335(b)(3)	[G]§ 60.334(b)	§ 60.334(j) § 60.334(j)(5)
T9	EU	T9SCFO-60GG	SO <sub>2</sub>	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) § 60.334(h)(4)	None	None
T9	EU	T9SCFO-60GG	NO <sub>x</sub>	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3) § 60.332(f) § 60.332(i)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	[G]§ 60.334(b) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(iii) [G]§ 60.335(a) § 60.335(b)(1) § 60.335(b)(2) § 60.335(c)(1)	[G]§ 60.334(b)	§ 60.334(j) § 60.334(j)(3) § 60.334(j)(5)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
T9	EU	T9SCNG-60GG	SO <sub>2</sub>	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) [G]§ 60.334(h)(3)	None	None
T9	EU	T9SCNG-60GG	NO <sub>x</sub>	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	[G]§ 60.334(b) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(iii) [G]§ 60.335(a) § 60.335(b)(1) § 60.335(b)(2) § 60.335(c)(1)	[G]§ 60.334(b)	§ 60.334(j) § 60.334(j)(5)
T9-DB	EU	T9-DB-60DC	SO <sub>2</sub>	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
T9-DB	EU	T9-DB-60DC	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
T9-DB	EU	T9-DB-60DC	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).			

**Additional Monitoring Requirements**

**Periodic Monitoring Summary ..... 30**

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 5	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: T9CCFO-CH111
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: Use of alternate fuel, or 15% opacity over a six-minute period.	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any time an alternate fuel is fired for a period of greater than 7 consecutive days then visible emissions observations will be conducted no less than once per week. Documentation of all observations shall be maintained. If visible emissions are present during the firing of an alternate fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.</p>	



### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 5	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: T9CCNG-CH111
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: Use of alternate fuel, or 15% opacity over a six-minute period.	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any time an alternate fuel is fired for a period of greater than 7 consecutive days then visible emissions observations will be conducted no less than once per week. Documentation of all observations shall be maintained. If visible emissions are present during the firing of an alternate fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 5A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: T9SCFO-CH111
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: Use of alternate fuel, or 15% opacity over a six-minute period.	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any time an alternate fuel is fired for a period of greater than 7 consecutive days then visible emissions observations will be conducted no less than once per week. Documentation of all observations shall be maintained. If visible emissions are present during the firing of an alternate fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 5A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: T9SCNG-CH111
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: Use of alternate fuel, or 15% opacity over a six-minute period.	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any time an alternate fuel is fired for a period of greater than 7 consecutive days then visible emissions observations will be conducted no less than once per week. Documentation of all observations shall be maintained. If visible emissions are present during the firing of an alternate fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-BLRS	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: BNG-CH111
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: Use of alternate fuel, or 15% opacity over a six-minute period.	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any time an alternate fuel is fired for a period of greater than 7 consecutive days then visible emissions observations will be conducted no less than once per week. Documentation of all observations shall be maintained. If visible emissions are present during the firing of an alternate fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: SC-10	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: T10-CH111
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: Use of alternate fuel, or 15% opacity over a six-minute period.	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any time an alternate fuel is fired for a period of greater than 7 consecutive days then visible emissions observations will be conducted no less than once per week. Documentation of all observations shall be maintained. If visible emissions are present during the firing of an alternate fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.</p>	

**Permit Shield**

**Permit Shield ..... 37**

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
B5	N/A	40 CFR Part 60, Subpart D	Construction of Unit 5 Boiler commenced prior to August 17, 1971 and has not been modified since construction.
B5	N/A	40 CFR Part 72	Unit 5 Boiler commenced operation prior to 11/15/90 and does not serve a generator with a capacity greater than 25 MWe.
B6	N/A	40 CFR Part 60, Subpart D	Construction of Unit 6 Boiler commenced prior to August 17, 1971 and has not been modified since construction.
B6	N/A	40 CFR Part 72	Unit 6 Boiler commenced operation prior to 11/15/90 and does not serve a generator with a capacity greater than 25 MWe.

**New Source Review Authorization References**

<b>New Source Review Authorization References.....</b>	<b>39</b>
<b>New Source Review Authorization References by Emission Unit .....</b>	<b>40</b>



### New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX840	Issuance Date: 01/23/2015
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: § 382.05185	Issuance Date: 09/01/2001
Authorization No.: 25738	Issuance Date: 01/23/2015
Authorization No.: 55627	Issuance Date: 03/28/2013

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
1	UNIT 5 BOILER STACK	§ 382.05185
2	UNIT 6 BOILER STACK	§ 382.05185
5A	UNIT 9 GAS TURBINE BYPASS STACK	25738, PSDTX840
5	UNIT 9 GAS TURBINE/HRSG STACK	25738, PSDTX840
B5	UNIT 5 BOILER	§ 382.05185
B6	UNIT 6 BOILER	§ 382.05185
SC-10	UNIT 10 GAS TURBINE STACK	55627
T10	UNIT 10 GAS TURBINE	55627
T9-DB	UNIT 9 GAS TURBINE DUCT BURNERS	25738, PSDTX840
T9	UNIT 9 GAS TURBINE	25738, PSDTX840

## Appendix A

Acronym List .....	42
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## Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM .....	actual cubic feet per minute
AMOC .....	alternate means of control
ARP .....	Acid Rain Program
ASTM .....	American Society of Testing and Materials
B/PA .....	Beaumont/Port Arthur (nonattainment area)
CAM .....	Compliance Assurance Monitoring
CD .....	control device
COMS .....	continuous opacity monitoring system
CVS .....	closed-vent system
D/FW .....	Dallas/Fort Worth (nonattainment area)
DR .....	Designated Representative
ELP .....	El Paso (nonattainment area)
EP .....	emission point
EPA .....	U.S. Environmental Protection Agency
EU .....	emission unit
FCAA Amendments .....	Federal Clean Air Act Amendments
FOP .....	federal operating permit
GF .....	grandfathered
gr/100 scf .....	grains per 100 standard cubic feet
HAP .....	hazardous air pollutant
H/G/B .....	Houston/Galveston/Brazoria (nonattainment area)
H <sub>2</sub> S .....	hydrogen sulfide
ID No. ....	identification number
lb/hr .....	pound(s) per hour
MMBtu/hr .....	Million British thermal units per hour
MRRT .....	monitoring, recordkeeping, reporting, and testing
NA .....	nonattainment
N/A .....	not applicable
NADB .....	National Allowance Data Base
NO <sub>x</sub> .....	nitrogen oxides
NSPS .....	New Source Performance Standard (40 CFR Part 60)
NSR .....	New Source Review
ORIS .....	Office of Regulatory Information Systems
Pb .....	lead
PBR .....	Permit By Rule
PM .....	particulate matter
ppmv .....	parts per million by volume
PSD .....	prevention of significant deterioration
RO .....	Responsible Official
SO <sub>2</sub> .....	sulfur dioxide
TCEQ .....	Texas Commission on Environmental Quality
TSP .....	total suspended particulate
TVP .....	true vapor pressure
U.S.C. ....	United States Code
VOC .....	volatile organic compound

## **Appendix B**

<b>Major NSR Summary Table .....</b>	<b>44</b>
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## Major NSR Summary Table

Permit Number: 25738/PSDTX840			Issuance Date: 1/23/2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
5A	Unit No. 9 Westinghouse W251B Turbine Natural Gas Firing	NO <sub>x</sub>	63.0	-	2,3, 7,8,9, 11, 12	2,3,7,8,9,11,12,14, 15	2,8,9
		CO	14.2	-			
		VOC	4.3	-			
		PM	10.6	-			
		PM <sub>10</sub>	3.6	-			
		SO <sub>2</sub>	1.1	-			
5A	Unit No. 9(5) Westinghouse W251B Turbine Fuel Oil Firing	NO <sub>x</sub>	117.9	-	2,3, 7,8, 9,11, 12	2,3,7,8,9,11,12,14, 15	2,8,9
		CO	128.7	-			
		VOC	4.4	-			
		PM	47.0	-			
		PM <sub>10</sub>	26.0	-			
		SO <sub>2</sub>	35.3	-			
5	Unit No. 9 + No DB (5) Westinghouse W251B Turbine Natural Gas firing	NO <sub>x</sub>	37.2	-	2,3, 7,8, 9,10,11, 12	2,3,7,8,9,10,11,12,14, 15	2,8,9
		NO <sub>x</sub> (MSS)	100	-			
		CO	14.2	-			
		CO (MSS)	400	-			
		VOC	4.3	-			
		PM	10.6	-			
		PM <sub>10</sub>	3.6	-			
		SO <sub>2</sub>	1.1	-			
		NH <sub>3</sub>	9.0	-			
5	Unit No. 9 + 60.8 MMBTU/hr DB	NO <sub>x</sub>	41.1	-	2,3, 7,8, 9,10,11, 12	2,3,7,8,9,10,11,12,14, 15	2,8,9
		CO	18.5	-			

Permit Number: 25738/PSDTX840			Issuance Date: 1/23/2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
	(5) Westinghouse W251B Turbine Natural Gas Firing	VOC	5.2	-			
		PM	11.6	-			
		PM <sub>10</sub>	4.1	-			
		SO <sub>2</sub>	1.2	-			
		NH <sub>3</sub>	9.0	-			
5	Unit No. 9 + HRSG (5) Westinghouse W251B Turbine Fuel Oil Firing	NO <sub>x</sub>	117.9	-	2,3, 7,8, 9,10,11, 12	2,3,7,8,9,10,11,1 2,14, 15	2,8,9
		CO	128.7	-			
		VOC	4.4	-			
		PM	47.0	-			
		PM <sub>10</sub>	26.0	-			
		SO <sub>2</sub>	35.3	-			
5 and 5A	Combined Annual Emission (6) (Simple/Combined Cycle Operations)	NO <sub>x</sub>	-	174.9	2,3 , 7,8, 9,10,11, 12	2,3,7,8,9,10,11,1 2,14, 15	2,8,9
		CO	-	110.3			
		VOC	-	21.5			
		PM	-	63.5			
		PM <sub>10</sub>	-	22.0			
		SO <sub>2</sub>	-	14.0			
		NH <sub>3</sub>	-	39.4			

Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from pot plan.
- (2) Specific point source name. For Fugitive sources, use area name or fugitive source name.
- (3) VOC -volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> -total oxides of nitrogen
- SO<sub>2</sub> -sulfur dioxide
- PM -total particulate matter, suspended in the atmosphere, including PM10 and PM2.5, as represented
- PM<sub>10</sub> -total particulate matter equal to or less than 10 microns in diameter, including PM2.5, as represented

PM <sub>2.5</sub>	-particulate matter equal to or less than 2.5 microns in diameter
CO	-carbon monoxide
NH <sub>3</sub>	-ammonia

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) The pound per hour emission rate includes the emission from maintenance, startup, and shutdown (MSS).
- (6) The tons per year emission rates include the emissions from MSS.
- (7) For each pollutant whose emissions are measured during planned MSS activities using a CEMS, only the MSS lb/hr limits apply during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.



Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Zak Covar, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

January 23, 2015

MR ALBERTO GOMEZ JR  
DIRECTOR OF ENVIRONMENTAL SERVICES  
BROWNSVILLE PUBLIC UTILITIES BOARD  
PO BOX 3270  
BROWNSVILLE TX 78523-3270

Re: Permit Renewal  
Permit Number: 25738  
Expiration Date: January 23, 2025  
Brownsville Public Utilities Board  
Unit 9 Combustion Turbine  
Brownsville, Cameron County  
Regulated Entity Number: RN100219450  
Customer Reference Number: CN603752932  
Account Number: CD-0009-B  
Associated Permit Number: PSDTX840

Dear Mr. Gomez:

This is in response to your application Form PI-1R (General Application for Air Permit Renewals) concerning the proposed renewal of Permit Number 25738. Also, this will acknowledge that your application for the above-referenced renewal is technically complete as of January 7, 2015.

In accordance with Title 30 Texas Administrative Code Section 116.314(a), and based on our review, Permit Number 25738 is hereby renewed. Since you certified there were no changes to your existing permit, it is renewed as written and will be in effect for ten years from the date of approval (Commission's final decision). Maintenance, startup, and shutdown emissions are authorized. Please attach this letter and new general conditions (permit face) to your permit. We appreciate your careful review of the special conditions of the permit and assuring that all requirements are consistently met.

You may file a **motion to overturn** with the Chief Clerk. A motion to overturn is a request for the commission to review the executive director's decision. Any motion must explain why the commission should review the executive director's decision. According to 30 TAC Section 50.139, an action by the executive director is not affected by a motion to overturn filed under this section unless expressly ordered by the commission.

A motion to overturn must be received by the Chief Clerk within 23 days after the date of this letter. An original and 7 copies of a motion must be filed with the Chief Clerk in person, or by mail to the Chief Clerk's address on the attached mailing list. On the same day the motion is transmitted to the Chief Clerk, please provide copies to the applicant, the executive director's

Mr. Alberto Gomez Jr  
Page 2  
January 23, 2015

Re: Permit Number: 25738

attorney, and the Public Interest Counsel at the addresses listed on the attached mailing list. If a motion to overturn is not acted on by the commission within 45 days after the date of this letter, then the motion shall be deemed overruled.

You may also request **judicial review** of the executive director's approval. According to Texas Health and Safety Code Section 382.032, a person affected by the executive director's approval must file a petition appealing the executive director's approval in Travis County district court within 30 days after the **effective date of the approval**. Even if you request judicial review, you still must exhaust your administrative remedies, which includes filing a motion to overturn in accordance with the previous paragraphs.

You are reminded that these facilities must be in compliance with all rules and regulations of the Texas Commission on Environmental Quality (TCEQ) and of the U.S. Environmental Protection Agency at all times.

If you need further information or have any questions, please contact Mr. Alvin Lira at 5122391513 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

Michael Wilson, P.E., Director  
Air Permits Division  
Office of Air  
Texas Commission on Environmental Quality

MPW/

cc: Air Section Manager, Region 15 - Harlingen  
Air Permits Section Chief, New Source Review Section (6PD-R), U.S. Environmental  
Protection Agency, Region 6, Dallas

Project Number: 220278



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
AIR QUALITY PERMIT



*A Permit Is Hereby Issued To*  
**Brownsville Public Utilities Board**  
*Authorizing the Continued Operation of*  
**Unit 9 Combustion Turbine**

*Located at* **Brownsville, Cameron County, Texas**

*Latitude* 25° 54' 40" *Longitude* -97° 31' 41"

Permit: 25738 and PSDTX840

Issuance Date : January 23, 2015

Expiration Date: January 23, 2025

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

## Special Conditions

Permit Numbers 25738 and PSDTX840

### Emission Standards and Operating Specifications

1. This permit covers only those sources of emissions listed in the attached table entitled “Emission Sources - Maximum Allowable Emission Rates (MAERT)” and the emissions from the planned maintenance, startup, and shutdown activities (MSS) and those sources are limited to the emission limits and other conditions specified in that attached table. Compliance with the annual emission limits and operating schedules is based on a rolling 12-month period (i.e., updated monthly) rather than the calendar year. **(4/13)**
2. These facilities shall comply with applicable requirements of the U.S. Environmental Protection Agency (EPA) in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) on Standards of Performance for New Stationary Sources promulgated for:
  - A. Subpart A: General Provisions
  - B. Subpart Dc: Small Industrial-Commercial-Institutional Steam Generating Units. (Duct Burners)
  - C. Subpart GG: Stationary Gas Turbines. (Gas Turbines)
  - D. If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.
3. The turbine shall not exceed the average hourly concentrations specified below in the stack gases, except during periods of upset or periods of MSS not to exceed three hours. The concentration shall be expressed in parts per million by volume dry (ppmvd) corrected to 15 percent oxygen (O<sub>2</sub>). **(4/13)**
  - A. Unit No. 9 Turbine [Emission Point Number (EPN): 5], operating in the combined cycle mode on natural gas shall not exceed:
    - (1) Duct Burners in operation
      - a. Nitrogen oxides (NO<sub>x</sub>) - 15 ppmvd.
      - b. Carbon monoxide (CO) - 13.9 ppmvd.
    - (2) Duct Burners not in operation
      - a. NO<sub>x</sub> - 15 ppmvd.

- b. CO - 10 ppmvd.
    - (3) Ammonia (NH<sub>3</sub>) slip - 10 ppmvd.
  - B. Unit No. 9 Turbine (EPN: 5A) operating in the simple cycle mode on natural gas shall not exceed:
    - (1) NO<sub>x</sub> - 25 ppmvd.
    - (2) CO - 10 ppmvd.
  - C. Unit No. 9 Turbine (EPNs: 5 or 5A), operating in simple cycle or combined cycle mode on fuel oil shall not exceed:
    - (1) NO<sub>x</sub> - 42 ppmvd.
    - (2) CO - 90 ppmvd.
4. Duct Burner Emission/Operating Limitations
- A. The duct burners shall be limited to firing natural gas at a maximum firing rate of 60.8 MMBtu/hr, based on the higher heating value (HHV) of the fuel.
  - B. There shall be no duct firing when the turbine is fired with fuel oil.
  - C. Duct burner emissions shall not exceed 0.08 pound (lb) NO<sub>x</sub>/MMBtu heat input HHV and 0.09 lb CO/MMBtu HHV.
  - D. Compliance with this condition shall be determined by testing conducted pursuant to Special Condition No. 8D.
5. Unit No. 9 (EPN: 5A) may operate in simple cycle mode for up to 3,000 hours per year.
6. Fuel Specifications
- A. Fuel fired in the gas turbine and duct burner is limited to natural gas containing no more than 15 parts per million (ppm) by weight total sulfur. This natural gas may be fired in the gas turbine and duct burner for up to 8,760 hours over any consecutive 12 month period.
  - B. Distillate fuel oil containing no more than 0.05 percent sulfur by weight may be fired in the gas turbine for a maximum of 720 hours over any consecutive 12-month period.
  - C. Use of any other fuel shall require modification to this permit.

7. During normal operations, opacity of emissions from each stack or vent shall not exceed 5 percent averaged over a six-minute period. During periods of MSS, the opacity shall not exceed 15 percent average over a six-minute period. The permit holder shall demonstrate compliance with this Special Condition in accordance with the following procedures: **(4/13)**
  - A. Visible emission observations shall be conducted and recorded at least once during each calendar quarter while the facilities are in operation, unless the emission unit is not operational for the entire quarter.
  - B. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point. Up to three emission points may be read concurrently, provided that all three emission points are within a 70 degree viewing sector or angle in front of the observer such that a proper sun position (at the observer's back) can be maintained for all three emission points. A certified opacity reader is not required for these visible emission observations.
  - C. If visible emissions are observed from an emission point, then the opacity shall be determined and documented within 24 hours for that emission point using 40 CFR Part 60, Appendix A, Reference Method (RM) 9.
  - D. Contributions from uncombined water shall not be included in determining compliance with this condition.
  - E. If the opacity exceeds the limits of this Special Condition, corrective action to eliminate the source of visible emission shall be taken promptly and documented within one week of the observation.

### **Initial Determination of Compliance**

8. The holder of this permit shall perform stack sampling and other testing as required to initially establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the turbine and duct burner, following the initial installation of the unit and following the completion of modifications authorized by the August 4, 1997 amendment to this permit. Sampling must be conducted in accordance with appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and in accordance with EPA RM 201A and 202 or EPA RM 5 modified to include front and back-half particulate, RM 8 for sulfur dioxide (SO<sub>2</sub>), RM 9 for opacity (consisting of 30 six minute readings as provided in 40 CFR § 60.11(b)), RM 10 for the concentration of CO, and RM 20 for the concentrations of NO<sub>x</sub> and O<sub>2</sub> or equivalent methods.

Fuel sampling using the methods and procedures of 40 CFR § 60.335(d) may be conducted in lieu of stack sampling for SO<sub>2</sub>. Use of alternate fuel sampling

methods and procedures first require written approval from the TCEQ regional office. If fuel sampling is used, compliance with New Source Performance Standards (NSPS), Subpart GG, SO<sub>2</sub> limits shall be based on 100 percent conversion of the sulfur in the fuel to SO<sub>2</sub>. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operation at his expense.

- A. The TCEQ Harlingen Regional Office shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Method for determining turbine load both before and after sampling.

The purpose of the pretest meeting is to review and formalize the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, to identify each operating parameter which is significant to maintaining emission compliance, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in this permit condition or any TCEQ or EPA sampling procedures shall be made available to the TCEQ at or prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in paragraphs B, C, or D of this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have EPA approval shall be submitted to the TCEQ Regional Office. Any equivalent test procedures or any test waivers must be approved by the TCEQ prior to the date required for conducting the tests in paragraph E of this condition.

- B. Air emissions to be tested for at full turbine load include, but are not limited to NO<sub>x</sub>, O<sub>2</sub>, CO, particulate matter (PM) (front and back-half), PM less than 10 microns in diameter (PM<sub>10</sub>, front-half only), and opacity. Testing at full turbine load shall be conducted for the following three test conditions:

- (1) turbine only firing with natural gas,



- (2) turbine only firing with fuel oil, and
  - (3) turbine firing with natural gas, duct burner firing at the maximum feasible rate with natural gas.
  - (4) The NO<sub>x</sub> and CO concentrations shall be corrected and reported according to Special Condition No. 3. This testing will be used to demonstrate initial compliance with Special Condition Nos. 1 and 3.
- C. Air emissions to be tested for at the minimum point in the normal operating range, 85 percent capacity, and the peak capacity for the atmospheric conditions occurring during the test include NO<sub>x</sub>, O<sub>2</sub>, and CO. Testing at these three load points shall be conducted for the following two test conditions:
  - (1) turbine only firing with natural gas and
  - (2) turbine only firing with fuel oil.
  - (3) The NO<sub>x</sub> and CO concentrations shall be corrected and reported according to Special Condition No. 3. This testing will be used to demonstrate initial compliance with Special Condition Nos. 1 and 3.
- D. Duct burner NO<sub>x</sub> and CO emissions shall be determined by sampling downstream of the duct burner with the turbine operating at maximum firing rate for the ambient conditions occurring during the test. Sampling shall occur in two phases:
  - (1) with the duct burner not operating and
  - (2) while firing the duct burner at the maximum feasible rate.
  - (3) The duct burner NO<sub>x</sub> and CO emission rates shall be calculated in lbs/MMBtu based on the increase in emissions and the heat input to the duct burner during the second phase of the test.
  - (4) Calculations shall be in accordance with equations provided in EPA Reference Method 19. This testing will be used to demonstrate compliance with Special Condition No. 4.
- E. Sampling required in this special condition shall be completed prior to:
  - (1) May 31, 1997 for the testing following the initial installation of the unit.

- (2) Following the modifications authorized in the amendment to this permit dated August 4, 1997, the continuous emissions monitoring data will be used to demonstrate emission compliance with the permit limits for simple cycle and combined cycle operation.
- F. Within 60 days after the completion of the sampling required in this special condition, two copies of the sampling report shall be distributed as follows:
  - (1) One copy to the TCEQ Harlingen Regional Office.
  - (2) One copy to the EPA Region 6 Office in Dallas.
- G. The initial performance test was completed on April 30, 1997 (Simple Cycle) and July 11, 1997 (Combined Cycle). **(4/13)**

### **Continuous Demonstration of Compliance**

- 9. The holder of this permit shall install, calibrate, and maintain continuous emission monitoring systems (CEMS) on each Stack (EPNs: 5 and 5A) to measure and record the in stack concentrations of NO<sub>x</sub>, CO, and O<sub>2</sub>.
  - A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or an acceptable alternative. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division in Austin for requirements to be met.
  - B. The holder of this permit shall assure that the CEMS meets the applicable quality assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1, or an acceptable alternative. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

Quality-assurance of the NH<sub>3</sub> CEMS shall be accomplished by Phenol Nitroprusside Method or the Indophenol Method on a quarterly basis. Results shall be recorded and calculations made to correlate test results to allowable emission rates.
  - C. The monitoring data shall be reduced to hourly average concentrations at least once every hour, using a minimum of four equally-spaced data points

from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable emissions rate in lb/hr at least once every hour. Pound per hour data from EPNs: 5 and 5A shall be summed monthly to tons per year and used to determine compliance with the annual emissions limits of this permit.

- D. All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or his designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.
  - E. The TCEQ Harlingen Regional Office shall be notified at least 30 days prior to any required relative accuracy test audits in order to provide them the opportunity to observe the testing.
  - F. If applicable, each CEMS will be required to meet the design and performance specifications, pass the field tests, and meet the installation requirements and data analysis and reporting requirements specified in the applicable performance specifications in 40 CFR Part 75, Appendix A. Title 40 CFR Part 75 is deemed an acceptable alternative to the performance specifications and quality-assurance requirements of 40 CFR Part 60.
  - G. If any emission monitor fails to meet specified performance, it shall be repaired or replaced immediately, but no later than seven days after it was first detected by any employee at the facility, unless written permission is obtained from the TCEQ which allows for a longer repair/replacement time. The holder of this permit shall develop an operation and maintenance program (including stocking necessary spare parts) to ensure that the continuous monitors are available as required.
10. The holder of this permit shall install a SCR unit on the Unit No. 9 Turbine to reduce and maintain NO<sub>x</sub> emissions to 15 ppmvd, corrected to 15 percent O<sub>2</sub> on an average hourly concentration basis in the stack gases when operating in the combined cycle mode using natural gas (EPN: 5). Compliance with this condition shall be determined as described in Special Condition No. 9.

Ammonia, used in the SCR to control NO<sub>x</sub> emissions, may pass through the SCR and be exhausted from EPN: 5. The NH<sub>3</sub> concentration in the Exhaust Stack (EPN: 5) shall be tested or calculated according to one of the methods listed below and shall be tested or calculated according to frequency listed below. Testing for NH<sub>3</sub> slip is only required when the SCR unit is in operation.

- A. The holder of this permit may install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NH<sub>3</sub>.

- B. As an approved alternative, the  $\text{NH}_3$  slip may be measured using a sorbent or stain tube device specific for  $\text{NH}_3$  measurement in the 5 to 10 ppm range. The frequency of sorbent or stain tube testing shall be daily for the first 60 days of operation, after which the frequency may be reduced to weekly testing if operating procedures have been developed to prevent excess amounts of  $\text{NH}_3$  from being introduced in the SCR unit and when operation of the SCR unit has been proven successful with regard to controlling  $\text{NH}_3$  slip. Daily sorbent or stain tube testing shall resume when the catalyst is within 30 days of its useful life expectancy.

If the sorbent or stain tube testing indicates an  $\text{NH}_3$  slip concentration which exceeds 8 ppm at any time, the permit holder shall begin  $\text{NH}_3$  testing by either the Phenol Nitroprusside Method, the Indophenol Method, or the EPA Conditional Test Method (CTM) 27 on a quarterly basis, in addition to the weekly sorbent or stain tube testing.

The quarterly testing shall continue until such time as the SCR unit catalyst is replaced; or if the quarterly testing indicates  $\text{NH}_3$  slip is 5 ppm or less, the Phenol Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent or stain tube testing again indicate 8 ppm  $\text{NH}_3$  slip or greater.

- C. As an approved alternative to sorbent or stain tube testing or an  $\text{NH}_3$  CEMS, the permit holder may install and operate a second  $\text{NO}_x$  CEMS probe located between the duct burners and the SCR, upstream of the stack  $\text{NO}_x$  CEMS, which may be used in association with the SCR efficiency and  $\text{NH}_3$  injection rate to estimate  $\text{NH}_3$  slip. This condition shall not be construed to set a minimum  $\text{NO}_x$  reduction efficiency on the SCR unit.
- D. As an approved alternative to sorbent or stain tube testing,  $\text{NH}_3$  CEMS, or a second  $\text{NO}_x$  CEMS, the permit holder may install and operate a dual stream system of  $\text{NO}_x$  CEMS at the exit of the SCR. One of the exhaust streams would be routed, in an unconverted state, to one  $\text{NO}_x$  CEMS and the other exhaust stream would be routed through a  $\text{NH}_3$  converter to convert  $\text{NH}_3$  to  $\text{NO}_x$  and then to a second  $\text{NO}_x$  CEMS. The  $\text{NH}_3$  slip concentration shall be calculated from the delta between the two  $\text{NO}_x$  CEMS readings (converted and unconverted).
- E. Any other method used for measuring  $\text{NH}_3$  slip shall require prior approval from the TCEQ Regional Director.
11. The holder of this permit shall monitor the sulfur content of the permitted fuels according to the requirements of 40 CFR Part 60, Subpart GG. Any custom schedule approved by EPA pursuant to 40 CFR § 60.334(b) will be recognized as an enforceable condition of the permit.

### **MSS Compliance (4/13)**

12. Compliance with the emissions for planned MSS activities identified on Attachment A and the MAERT.
  - A. For each pollutant whose emissions are measured with a CEMS that has been certified to measure the pollutant's emissions over the entire range of a planned MSS activity, the permit holder shall measure the emissions of the pollutant during the planned MSS activity using the CEMS.
  - B. For each pollutant whose emissions are not measured with a CEMS in accordance with paragraph A of this condition, determine for each calendar month the emissions of each pollutant listed on the MAERT of this permit from all occurrences of planned MSS activity by calculation. The calculations of the pollutant's hourly and monthly emissions must use data related to the planned MSS activity, identified in turbine operating records, work orders, or equivalent records. The emission rate of the pollutant during the planned MSS activity must be determined either:
    - (1) as represented in the permit application; or
    - (2) as determined with an appropriate method, including but not limited to any of the following methods, provided that the permit holder maintains appropriate records supporting such determination:
      - a. use of emission factor(s), facility-specific parameter(s), and/or engineering knowledge of the facility's operations;
      - b. use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on a similar facility, and correlation of that data with the activity's or facility's relevant operating parameters;
      - c. use of emissions testing data collected during a planned MSS activity occurring at or on the facility, and correlation of that data with the facility's or activity's relevant operating parameters, such as electric load, temperature, fuel input, or fuel sulfur content; or
      - d. use of parametric monitoring system data applicable to the facility.

### **Compliance Condition**

13. After the demonstration of initial compliance required in Special Condition No. 8, the continuous monitoring required in Special Condition Nos. 9 or 10, and the fuel quality monitoring required in Special Condition No. 11 shall constitute the methods for demonstrating continuous compliance with the standards of this permit. The CEMS, mass emission calculations, and the fuel quality monitoring data will be used to evaluate compliance with the applicable emission limitations of the MAERT.

### **Recordkeeping Requirements**

14. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction: **(4/13)**
  - A. A copy of the current.
  - B. Permit application dated July 15, 1994, and subsequent representations submitted to the TCEQ.
  - C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 8 to demonstrate initial compliance.
  - D. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.
15. The following information shall be made and maintained by the holder of this permit for a period of five years and shall be made available on request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction: **(4/13)**
  - A. The CEMS data of NO<sub>x</sub>, CO, and O<sub>2</sub> emissions from EPN: 5 and 5A to demonstrate compliance with Special Condition No. 3. **(4/13)**
  - B. The NO<sub>x</sub> and CO pound per hour emission rates shall be calculated using EPA Reference Method 19, CEMS data, and vendor fuel analysis to demonstrate compliance with the MAERT. The hourly values shall be totaled appropriately to demonstrate NO<sub>x</sub> and CO emissions for each month. **(4/13)**

Special Conditions

Permit Numbers: 25738 and PSDTX840

Page 11

- C. Raw data files of all CEMS data including calibration checks, adjustments, and maintenance performed on these systems in a permanent form suitable for inspection.
- D. Records of NH<sub>3</sub> slip monitoring to demonstrate compliance with Special Condition No. 3. **(4/13)**
- E. Records of dates and times for startups and shutdowns of the turbine. **(4/13)**
- F. Records of visible emissions observations, opacity readings, and any corrective action taken to demonstrate compliance with Special Condition No. 7. **(4/13)**
- G. The results of all fuel sampling conducted as required by Special Condition No. 11.
- H. Records of hours of operation and fuel flow rate for the turbine and duct burner and fuel vendor representations of fuel heat content.
- I. Records of monitored or calculated MSS emissions to demonstrate compliance with Special Condition No. 12.

Date: April 24, 2013

Attachment A

Permits Numbers 25738 and PSDTX840

non - ILE Maintenance Activities							
Activity	EPN	Emissions					
		NO <sub>x</sub>	CO	VOC	PM	SO <sub>2</sub> / H <sub>2</sub> S	NH <sub>3</sub> / urea
Combustion unit tuning <sup>1</sup>	5 5A	X	X	X	X	X	

Date: April 24, 2013

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<sup>1</sup> Includes, but is not limited to: leak and operability checks (e.g. turbine overspeed tests, troubleshooting), seasonal tuning, and balancing.



# Emission Sources - Maximum Allowable Emission Rates

Permit Number 25738 and PSDTX840

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

## Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr (7)	TPY (4)
Simple Cycle Operations				
5A	Unit No. 9 (5) Westinghouse W251B Turbine Natural Gas Firing	NO <sub>x</sub>	63.0	-
		CO	14.2	-
		VOC	4.3	-
		PM	10.6	-
		PM <sub>10</sub>	3.6	-
		SO <sub>2</sub>	1.1	-
5A	Unit No. 9 (5) Westinghouse W251B Turbine Fuel Oil Firing	NO <sub>x</sub>	117.9	-
		CO	128.7	-
		VOC	4.4	-
		PM	47.0	-
		PM <sub>10</sub>	26.0	-
		SO <sub>2</sub>	35.3	

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr (7)	TPY (4)
Combined Cycle Operations				
5	Unit No. 9 + No DB (5) Westinghouse W251B Turbine Natural Gas Firing	NO <sub>x</sub>	37.2	-
		NO <sub>x</sub> (MSS)	100	-
		CO	14.2	-
		CO (MSS)	400	-
		VOC	4.3	-
		PM	10.6	-
		PM <sub>10</sub>	3.6	-
		SO <sub>2</sub>	1.1	-
		NH <sub>3</sub>	9.0	-
5	Unit No. 9 + 60.8 MMBtu/hr DB (5) Westinghouse W251B Turbine Natural Gas Firing	NO <sub>x</sub>	41.1	-
		CO	18.5	-
		VOC	5.2	-
		PM	11.6	-
		PM <sub>10</sub>	4.1	-
		SO <sub>2</sub>	1.2	-
		NH <sub>3</sub>	9.0	-
5	Unit No. 9 + HRSG (5) Westinghouse W251B Turbine Fuel Oil Firing	NO <sub>x</sub>	117.9	-
		CO	128.7	-
		VOC	4.4	-
		PM	47.0	-
		PM <sub>10</sub>	26.0	-
		SO <sub>2</sub>	35.3	-

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr (7)	TPY (4)
Annual Emissions				
5 and 5A	Combined Annual Emission (6) (Simple/Combined Cycle Operations)	NO <sub>x</sub>	-	174.9
		CO	-	110.3
		VOC	-	21.5
		PM	-	63.5
		PM <sub>10</sub>	-	22.0
		SO <sub>2</sub>	-	14.0
		NH <sub>3</sub>	-	39.4

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- NH<sub>3</sub> - ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) The pound per hour emission rate includes the emissions from maintenance, startup, and shutdown (MSS).
- (6) The tons per year emission rates include the emissions from MSS.
- (7) For each pollutant whose emissions are measured during planned MSS activities using a CEMS, only the MSS lb/hr limits apply during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.

Date: April 24, 2013